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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/965,921	09/28/2001	Yongxia Wang	1898	4216

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EXAMINER

SERGEANT, RABON A

ART UNIT

PAPER NUMBER

1711

DATE MAILED: 12/04/2002

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Please find below and/or attached an Office communication concerning this application or proceeding.

AS-5

Office Action Summary

Application No.
09/965,921

Applicant(s)
Wang et al.

Examiner
Rabon Sergeant

Art Unit
1711



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE three MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on Sep 11, 2002
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above, claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 3
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1 and 2 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Fuhr et al. ('951).

Patentees disclose the use of flame retardants within plastics, including polyurethanes, wherein ethylene-bistetrabromophthalimide is disclosed as a suitable flame retardant. See column 2, lines 35 and 36 and column 3, lines 1 and 2.

Even if the reference is not anticipatory due to the number of disclosed species, the position is taken that it would have been obvious from the teachings of the reference to utilize the

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known flame retardant within any polyurethane formulation. It has been held that it is *prima facie* obvious to utilize a known compound for its known function. In re Linder, 173 USPQ 356; In re Dial et al., 140 USPQ 244.

3. Applicants have argued that the instant invention is patentable over Fuhr et al, because the instant claims do not require the presence of the metal oxides of Fuhr et al. In response, applicants' arguments are without merit; applicants' claims are open to the inclusion of any component and in no way exclude the argued metal oxides.

4. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Merz et al. ('873) in view of Aoyama et al. ('219) or Fuhr et al. ('951) or Fesman ('105 or '044 or '485), each further in view of Lee ('040).

Merz et al. disclose reactive hot-melt polyurethane adhesives comprising the reaction product of polyisocyanates with polyols, in combination with thermoplastic materials, including acrylate polymers, and flame retardants. See abstract; column 2, lines 20+; column 3, lines 35+; and column 4, line 21.

5. Though the primary reference discloses that flame retardants may be used within the adhesive, the reference is silent with respect to the species of flame retardants. However, Aoyama et al., Fuhr et al., and Fesman each disclose the use of applicants' claimed flame retardants within polymeric compositions. Fuhr et al. and Fesman further disclose polyurethanes as being suitable polymeric species. See columns 2 and 3 within Aoyama et al. See column 2 within Fuhr et al. See column 5 within Fesman. Since it has been held that it is *prima facie* obvious to utilize a

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known component for its known function, it would have been obvious to incorporate the flame retardants of the secondary references into the adhesive of Merz et al. Furthermore, Lee discloses at column 3, lines 58+ that the effectiveness of brominated flame retardants, such as ethylene bistetrabromophthalimide, can be increased by adding antimony oxide into the composition. Accordingly, it would have been obvious to incorporate the additionally claimed (claims 6 and 10) flame retardants into the adhesive of Merz et al.

6. The examiner has considered applicants' response; however, the position is maintained that the combined teachings of the relied upon references are adequate to render the instant invention *prima facie* obvious, and applicants have not provided showings of unexpected results attributable to the use of the claimed flame retardants within polyurethanes to rebut the *prima facie* case of obviousness. With respect to Aoyama et al., the position is taken that one would have reasonably expected the disclosed flame retardants to be useful within a wide range of polymeric materials, including polyurethanes, given the varied nature of the suitable polymers disclosed within the reference. Lee has been relied upon to demonstrate that it was known that the efficiency of the brominated flame retardants can be improved by the addition of other flame retardants. This characteristic would have been expected to be relevant for any polymeric system where the brominated compounds would have been expected to be viable flame retardants. It is noted that applicants have provided no evidence to support their arguments concerning the decomposition temperatures of the cited polymeric systems. Furthermore, the relevance of the argument is unclear. Lastly, with respect to the arguments concerning Fuhr et al. and Fesman, it


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is noted that applicants' claims are open to the inclusion of any component, including metal oxides and organophosphorous materials. Therefore, arguments concerning the presence of these materials within the references are without merit.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (703) 308-2982.


RABON SERGENT
PRIMARY EXAMINER

R. Sergent

November 30, 2002